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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,781	10/17/2003	R. Terry Wornath	48198-00002	7720
23767	7590	12/07/2005		
PRESTON GATES ELLIS & ROUVELAS MEEDS LLP 1735 NEW YORK AVENUE, NW, SUITE 500 WASHINGTON, DC 20006			EXAMINER FLANIGAN, ALLEN J	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TLR

Office Action Summary	Application No.	Applicant(s)	
	10/686,781	WORNATH	
	Examiner	Art Unit	
	Allen J. Flanigan	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 and 52-59 is/are pending in the application.
- 4a) Of the above claim(s) 15-23, 39-50, 52 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 24-38, 53 and 55-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's election with traverse of Invention I in the reply filed on 6/13/2005 is acknowledged. The traversal is on the ground(s) that "no serious burden" would be involved in examining all of the distinct inventions together. This is not found persuasive because a proper traversal must point out the alleged error in holding the restrictions to be patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

Claims 39-49, drawn to a separate and distinct invention (method of combustion) were inadvertently omitted from the restriction requirement. They are drawn to an invention distinct from the elected invention (heat exchanger and method) because the claimed heat exchanger could be used for other methods not involving combustion. Therefore they are withdrawn from consideration along with other claims to nonelected inventions. The Examiner apologizes for this inadvertent omission.

Claims 15-23, 39-50, 52, and 54 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 6/13/2005.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3753

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-10, 13, 14, 24-29, 31-33, 36-38, 53, 55-62, 64, 65, 68, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by Fayolle.

Fayolle shows stacked parallel plates within an enclosure for exchanging heat between two fluid streams. As shown, they may be corrugated (claim 8). They are made from metals such as "steel, stainless steel, titanium . . .".

Regarding claims 53 and 55, the recitations in these claims essentially fail to further limit the claims in any way. BTU is a measure of heat; compare with joule or calorie. Specifying that an exchanger is "adapted to exchange" an amount of heat is basically meaningless. Heat exchangers are typically rated based on heat exchange rates, i.e. how much heat per unit time (Watts, BTU/hr, etc.) can be exchanged between fluids. Even the smallest capacity exchanger is capable of exchanging any amount of heat over a long enough period of time.

Claims 7, 11, 12, 30, 34, 35, 63, 66, and 67 are rejected under 35 U.S.C. 102(b) as being anticipated by Murray.

See Figs. 5 and 6, lines 12-21 of page 2 of Murray.

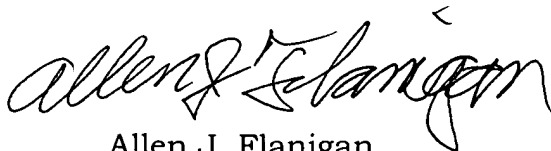
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references of record show various plate type heat exchangers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (571) 272-4910. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Blau can be reached on (571) 272-4406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Allen J. Flanigan". The signature is written in a cursive, flowing style with a large, stylized "F".

Allen J. Flanigan
Primary Examiner
Art Unit 3753

AJF